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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/029,252	12/28/2001	Sung Hyuk Hong	K-0370	5028

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EXAMINER	
JAIN, RAJ K	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
10/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/029,252	HONG, SUNG HYUK	
	Examiner	Art Unit	
	Raj K. Jain	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 April 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 4-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

General Remarks

Upon reexamination, the Examiner found prior art which is applicable to the claims in question and therefore the Examiner withdraws the Allowance of subject claims submitted on June 13, 2007 and respectfully submits this Non-Final Office Action for consideration by Applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims1-4, 7-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al (US005319707A) in view of Deluca et al (USP 5,128,665).

Regarding claims 1, 16 and 24, Wasilewski discloses a method and apparatus for forward transmission (see Fig. 1, abstract, transmitter 18 for forward transmission) comprising:

processing data to be transmitted (Fig. 1, encoder 16 processes data to be transmitted, see col 5 lines 54-60.) the data comprising:

- a header subframe containing frame mapping information of data to be transmitted to a plurality of terminals (see Fig. 15, col 24 lines 27- 40 each subframe vcm contains a header 288 followed by plurality of subframe virtual channel map

definitions that specifies a particular virtual channel number for the subscriber to select via appropriate decoders.); and,

-data subframes containing data multiplexed therein, and to be transmitted to a plurality of terminals at the present time in correspondence to frame mapping information transmitted in advance wherein the frame mapping information transmitted in advance includes subframe numbers (see col 3 lines 14-17, a subframe of data streams is multiplexed at the encoder 16 (Figs. 1 and 2, col 6 lines 39-50) for transmission, each subframe data is mapped which is transmitted in advance (Fig. 4) to the receiver prior to actual data arriving so there is minimum delay in processing. Fig. 19(a) illustrates a data subframe, with different data types transmitted in advance see col 29 lines 10 – 65).

Wasilewski fails to disclose subframes arranged in a specific order to correspond to positions of corresponding multiplexed subframes.

Deluca discloses a message structure (superframe) which comprises multiple packets (subframes) (Fig. 1). In the address field in Delucas system, the address signal numbers 1-L are arranged in a specific order to correspond to positions of the corresponding packets 1-L (subframes) in the message (superframe). This simple mechanism enables the receiver to quickly detect the appropriate packet based on the position of the address signal number. Thus, it would have been obvious to one skilled in the art at the time the invention was made to apply Delucas teaching of arranging address signal numbers in a specific order to correspond to positions of the corresponding packets 1-L (subframes) in the message (superframe) in Wasilewski with

the motivation being to provide a simple mechanism to enable the receiver to quickly detect the appropriate frame based on the position of the subframe number.

Regarding claim 2, Wasilewski discloses transmitting the mapping information at least n frame in advance (See Fig. 13 mapping info transmitted in advance).

Regarding claim 25, Wasilewski discloses transmitting the mapping information at least 1 frame in advance and information on positions of the multiplexed data in the frame transmitted (see Fig. 19a col 29 lines 30-47, col 3 lines 14-17, col 7 lines 60-67, a subframe of data streams once formed is multiplexed at the encoder 16 of Fig. 1 for transmission, furthermore each subframe data is mapped which is transmitted in advance to the receiver so that it may be ready for decoding prior to actual data arriving so there is minimum delay in processing the received data).

Regarding claim 4, Wasilewski discloses subframes positioned in the frame according to an order of transmission of the subframe numbers (see Fig. 15 col 24 lines 27-42, each subframe is ordered and labeled with proper definitions such as VCMD1, VCMD2, etc.).

Regarding claims 7, 8 and 13-15, 21, 22, Wasilewski discloses encoded subframes (see Fig. 1 decoder 36, col 3 lines 34-50.)

Regarding claims 9, 10, 19, 20 Wasilewski discloses multiplexed data stream (see Fig. 2, and abstract, encoder 16 (Fig. 1) illustrates data multiplexed prior to transmission.)

Regarding claims 11, 17, Wasilewski discloses data interleaving, encoding and scrambling (see Figs 3a and 12a.).

Regarding claim 12, Wasilewski discloses data transmission to plurality of terminals (see Fig.1), power supply to turn on or off data transmission is inherent to the invention.

Regarding claim 18, Wasilewski discloses an encoder 36 (Fig. 1) that performs data and subframe information extraction (see col 3 lines 34-50.)

Regarding claim 23, Wasilewski discloses scalable or flexible data transmission rate based on transmission medium characteristics (see col 2 lines 7-20, col 11 lines 14-25.).

Claims 5, 6 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski et al (US005319707A) in view of Deluca et al (USP 5,128,665) and further in view of Applicant's admitted prior art (Fig. 1). Wasilewski discloses a system and method for multiplexing a plurality of digital programs for transmission to a plurality of remote locations.

Wasilewski fails to disclose the header subframe containing frame quality indicator, R/T information subframe numbers. Prior art (fig. 1) shows frame quality indicator, R/T information subframe numbers. The use of frame quality indicator and R/T info, provides the receiver with data stability and priority information. Thus it would have been obvious at the time the invention was made to incorporate the teachings of Prior art within Wasilewski and Deluca so as to improve data transmission and reception as appropriate.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 4-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raj K. Jain whose telephone number is 571-272-3145. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Raj K. Jain
/Raj K. Jain/
Art Unit 2616

October 9, 2007